

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Piedmont Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Atlantic Waste Disposal, Inc.
Waverly, Virginia
Permit No. PRO – 51278

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Waste Management, Inc. has applied for an amended Title V Operating Permit for its Waverly facility. The Department has reviewed the application and has prepared an amended Title V Operating Permit.

Engineer/Permit Contact:_____ Date:

Air Permit Manager:_____ Date:

Regional Deputy Director:_____ Date:

FACILITY INFORMATION

Permittee

Atlantic Waste Disposal, Inc.
3474 Atlantic Avenue
Waverly, Virginia 23890

Facility

Atlantic Waste Disposal Landfill
3474 Atlantic Avenue
Waverly, Virginia 23890

Responsible Official

Mr. Lee Wilson
Director of Landfill Operations

Facility Contact

Mr. Michael P. Kearns
District Manager
(804) 834-8300

County-Plant Identification Number: 183-0036

SOURCE DESCRIPTION

SIC Code: 4953 – Atlantic Waste Disposal Landfill is a municipal solid waste landfill located at 3474 Atlantic Lane, Waverly, VA, in Sussex County. Atlantic Waste Disposal, Inc. is the legal incorporated entity.

The landfill began operations in June 1994 and receives waste by rail or road. The waste deposited at the landfill is from municipalities within and outside the Commonwealth of Virginia. Only certain waste types are allowed under Solid Waste Permit #562 at the facility. Some of these waste types include the following: municipal solid waste, industrial waste, refuse, institutional waste (except anatomical, infectious, or pathological waste), commercial waste, garbage, compost, debris (wood, brush, leaves), sludges (including water treatment plant sludges with no free liquids and wastewater treatment plant sludges that have been stabilized, digested or heat treated), demolition waste, and scrap metal. The following wastes are prohibited according to Solid Waste Permit #562: regulated hazardous wastes, dioxin wastes, PCB wastes, asbestos waste, lead acid batteries, nuclear, nuclear by-product or waste material, flammable or explosive waste, non-hazardous, domestic irrigation return flows, and industrial point source discharges.

AWD's landfill became an active collection site on October 21, 2000. The Landfill is subject to applicable requirements listed in Subpart WWW of the New Source Performance Standards (NSPS) "Standards of Performance for Municipal Solid Waste Landfills" because it was constructed after the

effective date of May 30, 1991, and its permitted design capacity exceeds $2.5 \times 10^6 \text{ m}^3$. Landfills subject to NSPS WWW are also subject to the requirements of Subpart AAAA of the National Emission Standards for Hazardous Air Pollutants (NESHAP) "National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills." The Landfill is also subject to Title V permitting due to its applicability to NSPS subpart WWW and NESHAP AAAA. The source is located in an attainment area for all pollutants. The source currently has a Prevention of Significant Deterioration (PSD) permit. Any future expansion of the landfill, not already permitted by the current PSD permit, which results in emissions greater than New Source Review exemption levels, may be subject to permitting.

The facility's property is composed of approximately 1,315 acres. The landfill is segregated into the following cells: LC-1, LC-2, LC-3, LC-4, LC-5A, LC-5B, LC-6A, LC-6B, LC-7A, LC-7B, LC-7C, LC-8A, LC-8B, LC-9A, LC-9B, LC-10A, LC-10B, LC-10C, LC-11A, LC-11B, LC-11C, LC-12A, LC-12B, LC-12C (collectively referred to as LFO-1). According to the August 20, 2004 PSD permit, the landfill projects a final facility volume of 114.5 million cubic yards.

Emission Units:

The emission units at the landfill include: landfill operations, five open ("candle") flares. These are new units under Virginia Regulations and are regulated by Virginia's New/Modified Stationary Source Rules and the NSPS, Subpart WWW and NESHAP, subpart AAAA. Permit limits have been assigned to the flares only (CF-2 through CF-6).

For PSD purposes, the treated landfill gas compression and transmission facility, currently being operated by Waverly Gas Producers, LLC (Registration Number 52013), is considered a support facility of AWD. Since emissions from the flares are considered "worst-case" emissions, the two landfill gas-fired compressors at Waverly Gas Producers, LLC did not need to be included in the PSD permit. For the purpose of NSPS WWW [40 CFR 60.752(b)(iii)(C)], Waverly Gas Producers, LLC provides for the routing of the collected landfill gas to a treatment system that processes the collected gas for subsequent sale or use to energy recovery device.

The landfill also includes equipment that is deemed insignificant, such as the leachate storage tanks, fluid storage tanks, two emergency generators, and portable light plants.

Emission Unit Description:

The flares consist of two nonassisted, LFG&E Triton Utility Flares Model CF-2500 and three nonassisted LFG&E Triton Utility Flares Model CF-3500 having dimensions of 1 foot (diameter) by 32 feet (high). Each TCF-2500 flare has a maximum flow rating of 2500 scfm, and is equipped with a blower that has a maximum flow rating of 2500 scfm and each TCF-3500 flare has a maximum flow rating of 3500 scfm and is equipped with a blower that has a maximum flow rating of 2500 scfm.

COMPLIANCE STATUS

The last inspection at the facility by the Virginia Department of Environmental Quality occurred on March 16, 2005 and indicates compliance with the PSD permit issued, August 20, 2004. In

addition, the source is believed to be in compliance with the NSPS at 40 CFR 60, Subpart WWW and with the NESHAP at 40 CFR 63, Subpart AAAA for the operation of a MSW landfill gas collection and control system.

EMISSIONS INVENTORY

A summary of AWD's most recent annual emissions is shown below. Emission levels are expected to increase over time as the landfill builds out and more waste decomposes.

2003 Criteria Pollutant Emissions (tons/yr)								
Emission Unit	PM	PM10	PM2.5	NMOC	VOC	CO	NO ₂	SO ₂
Fugitive Emission	29.80	29.80	4.50	98.61	38.5	N/A	N/A	N/A
Landfill Operations	6.49	6.49	6.49	4.09	1.61	52.10	23.60	5.62
Total	36.29	36.29	10.99	102.70	40.11	63.73	23.60	5.62

EMISSION UNIT APPLICABLE REQUIREMENTS - [CF-2 through CF-6, LFO-1]

Limitations

The following Virginia Administrative Code and New Source Performance Standards have specific emission requirements that have been determined to be applicable:

- 40 CFR 60 Subpart WWW – Standards of Performance for Municipal Solid Waste Landfills - Applicable to the flares (CF 2 through CF6) and other portions of the landfill gas collection and control system (LFO-1).
- 40 CFR 63 Subpart AAAA National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills – applicable to the entire landfill including the gas collection and control system (LFO-1) and the flares (CF-2 through CF-6)

Monitoring

The monitoring requirements listed in the Title V permit have been drafted to meet Part 70 requirements and those contained in 40 CFR 60.756. If monitoring demonstrates that the requirements pertaining to the landfill's operational standards are not being met, corrective action shall be taken as specified in 40 CFR 60.755.

Recordkeeping

The permit includes requirements for maintaining records of all monitoring and testing required by the regulations. These records include the annual throughput of landfill gas, control efficiency tests of the control equipment, the annual placement of municipal solid waste in the landfill and all monitoring information for the GCCS, flares. These specific requirements are listed in 40 CFR 60.758

Testing

An initial performance test to determine the net heating value of the gas being combusted and the actual exit velocity for each open flare shall be performed, and demonstrate compliance, within 60 days after achieving maximum production rate at which each flare will be operated but no later than 180 days after initial start-up of each flare.. In addition, a Visible Emission Evaluation shall be performed within 60 days after achieving the maximum production rate at which each flare will be operated but no later than 180 days after initial start up of each flare Test methods for required monitoring of oxygen or nitrogen content at each wellhead, as specified in Subpart WWW and the August 20, 2004 PSD permit are included in the Title V permit.

Reporting

All reports required by NSPS Subpart WWW (Section 60.755) shall be prepared and submitted to EPA and the Piedmont Regional Office in accordance with procedures outlined in Subpart WWW (Section 60.757).

All reports required by NESHAP Subpart AAAAA, including deviations for out-of-range monitoring parameters, shall be prepared and submitted to EPA and the Piedmont Regional Office in accordance with procedures outlined in Subpart AAAAA (Section 63.1980).

Streamlined Requirements

The requirement to submit an initial collection and control plan [60.752(b)(2)(i)] and a initial design capacity report [60.757(a)] have been streamlined out of the permit. These requirements have been met.

The provision for removal of the collection and control system [60.752(b)(2)(v)] was streamlined out of the permit. Per the terms Subpart WWW, the collection and control system must operate a minimum of 15 years. Given the startup date for the system of 10/21/2000, the collection and control system can not be removed during the fixed five-year term of this permit.

The requirement to submit a Title V application [60.752(c)] has been streamlined out. This requirement has been met.

The requirement to determine Subpart WWW applicability with specific NMOC calculations method [60.754(a)] has been streamlined out. Also related, the requirement to submit the annual NMOC reports [60.757(b)], for the purpose of showing continued non-applicability to subpart WWW has been streamlined out. The determination of Subpart WWW applicability has been completed.

The requirement to calculate NMOC emissions rate for purpose of determining when the collection and control system can be removed [60.754(b)] has been streamlined out. As

previously explained, the collection and control system can not be removed during the term of this Title V permit.

The requirement to submit a collection and control design plan, found at 60.757(c), has been streamlined out. This only applied if the initial NMOC report showed the landfill was not an affected facility under Subpart WWW.

The requirement to report equipment removal [60.757(e)] has been streamlined out. As previously explained, the collection and control system can not be removed during the term of this permit.

The requirement to submit an “initial annual report” [60.757(f)] has been streamlined out. This requirement has been met.

The requirement to include certain specific information with the initial performance test report for CF-2 and CF-3 [60.757(g)] has been streamlined out. Initial performance testing for those units has been completed and reports have been submitted.

In the original Title V permit (January 1, 2004) the leachate tanks were assigned applicable requirements for recordkeeping under NSPS Kb. This amended permit removes these requirements and lists the leachate tanks as insignificant due to information showing the leachate is 99.96% water.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions, including those caused by upset, within one business day.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia*, and the “Department of Environmental Quality Agency Policy Statement NO. 3-2001.”

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emissions reporting within 4 hours. Section 9 VAC 5-80-250 also requires malfunction reporting; however, reporting is required

within 2 days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to this section including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both Sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within 4 day time business hours of the malfunction.

In order for emission units to be relieved from the requirement to make a written report in 14 days, the emission units must have continuous monitors and the continuous monitors must meet the requirements of 9 VAC 5-50-410 or 9 VAC 5-40-41.

U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in section 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation, see the comments on general condition F.

STATE ONLY APPLICABLE REQUIREMENTS

The following Virginia Administrative Codes have specific requirements only enforceable by the State and have been identified as applicable by the applicant:

9 VAC 5 Chapter 50, Part II, Article 2: Standards of Performance for Odorous Emissions

9 VAC 5 Chapter 50, Part II, Article 3: Standards of Performance for Toxic Pollutants

FUTURE APPLICABLE REQUIREMENTS

All applicable requirements for NSPS WWW landfills are contained in the permit at this time. However, it must be recognized that amendments have been proposed to this Subpart and that the future promulgation of these amendments to the regulation may impact this operating permit.

INAPPLICABLE REQUIREMENTS

9 VAC 5-40-5800 and 40 CFR Part 60, subpart Cc– “Emission Standards for Sanitary Landfills”: These regulations only apply to municipal solid waste landfills which commenced construction, reconstruction or modification before May 30 1991.

COMPLIANCE PLAN

The source does not have the requirement of a compliance plan.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

This amended permit will not have to go to Public Notice as per 9 VAC 5-80-560(A)(5) and (B)(2) because the PSD permit on which this amendment is based went to Public Notice and fulfilled the requirements of 9 VAC 5-80-670 in April/May 2004.